

REMARKS

The Office Action mailed December 2, 2004 has been received and the Examiner's comments carefully reviewed. Claims 1-22 have been cancelled and new claims 23-40 have been added. The new claims are supported at page 9, lines 1-3, in the claims as originally filed, and elsewhere throughout the specification. No new matter has been added. Claims 23-40 are currently pending in this application. Applicants respectfully submit that the pending claims are in condition for allowance

Claims 1-2 and 5-8 were rejected under 35 U.S.C. § 103(a) as being obvious over the "3M Headset Intercom System Model C960 Operating Instructions" (hereinafter "3M Manual") in view of Ruppert et al. (U.S. 2,236,969) ("Ruppert"). Claims 3-4, 9-11, 13-15 and 18-20 were rejected under 35 U.S.C. § 103(a) as being obvious over the 3M Manual in view of Ruppert and further in view of U.S. Patent No. 6,525,854 to Takahashi ("Takahashi"). Claims 21-22 were rejected under 35 U.S.C. § 103(a) as being obvious over the 3M Manual in view of Ruppert and Takahashi, and further in view of U.S. Patent No. 5,247,380 to Lee. These rejections are respectfully traversed. In an effort to expedite prosecution, the previously pending claims were cancelled and new claims 23-40 were submitted.

Claims 23, 32, and 35 are independent. Claim 23 relates to a system including programmable headsets and a programming unit. The headsets each include a transmitter, a receiver, a headset signal processing device and an infrared light detector. The programming unit includes an infrared light emitter, a signal processing device, and a cradle for receiving a portion of the headset. The programming unit signal processing device is configured to output a signal containing the operation frequency for the transmitter and the receiver for transmission by the programming unit infrared light emitter to the headset infrared light detector. As a result, an infrared signal between the programming unit and the headset can set the operating frequency of the transmitter and receiver.

The Office Action acknowledges that the aspects of the claims related to infrared signals are not taught by the 3M Manual. The Office Action argues, "Ruppert teaches a communication system comprising a headset and a base station with a variety of features, one of which is means to transmit and receive information via both infrared and radio frequency signals. The IR

communication interfaces are intended for data transfer between the headset and the base station as well as other devices . . ."

In discussing Ruppert, the Office Action goes on to argue, "Control signals input through the headset (10) are disclosed as being able to alter the tuning of the RF circuitry as well as effect data transmission over the I/R interface (col. 10, lines 23-32)." Office Action, page 4, last full paragraph.

With respect to claim 23, Applicants respectfully submit that Ruppert does not teach that a programming unit signal processing device is configured to output a signal containing the operating frequency for the transmitter and the receiver for transmission by the programming unit to the headset. We will now discuss the specific locations in Ruppert that are referred to in the Office Action and illustrate that the claimed features are not described.

At Col. 10, lines 16-34, Ruppert states:

Depending upon which controls are activated, the spoken voice command is converted to an electronic signal which is then passed to the appropriate control in step 196. After the control signals have been received by either the RF or I/R control circuitry, the corresponding controls are deactivated in steps 198 and 200. If no further commands are received in step 202, the telephone headset 10 passes to the standby mode in step 204. The audible commands executed by the command control ASIC according to the steps in FIG. 9 can correspond to commands for tuning the RF reception of the telephone headset 10 to a particular base unit 70. In addition, when I/R controls are activated, the commands can give effect to various data transmissions over the I/R channel between the base unit 70 and the telephone headset 10. In some cases, the I/R channel can be used to transmit data to the base unit 70 and through the serial interface 86 to a personal computer. Such data can be spoken words processed through speech synthesizer software to be downloaded to the PC, for subsequent transcription, for instance.

A section within the above passage of Ruppert is cited by the office action as support for the following statement: "Control signals input through the headset (10) are disclosed as being able to alter the tuning of the RF circuitry as well as effect data transmission over the I/R interface (col. 10, lines 23-32)."

However, Applicants respectfully submit that the above section of Ruppert discusses using audible commands detected by the headset to determine whether or not to activate RF and IR controls. However, this section does not describe that an IR signal received by a headset will include the operational frequency for an RF transmitter and receiver of the headset.

The Office Action also cites other sections of Ruppert that describe how the IR communications with the headset of Ruppert can be used. At Col. 10, lines 49-63 Ruppert states:

The I/R port 89 adds a further dimension to the flexible communications achieved by the present invention. The I/R port permits communication that is not frequency dependent. In other words, while RF or cellular communication requires a unit specific address frequency, I/R communication requires no such limiting address. Thus, two headsets can communicate with each other, or a single base unit 70 can issue broadcast communications over the I/R band. Again, the microprocessor 30 of each headset can include software to recognize that an I/R transmission is being received. Various transmission protocols can be implemented to enable the headset to awake from a standby mode and activate the appropriate IR interface circuitry. If security is an issue, the I/R transmission packets can include password information recognizable only by a specific headset.

In this passage, Ruppert teaches using an IR signal to control some aspects of headset operation, such as password information or awaking from a standby mode. However, Ruppert does not describe that a "programming unit signal processing device is configured to output a signal to the programming unit infrared light emitter containing the operation frequency for the transmitter and the receiver for transmission by the programming unit infrared light emitter to the headset infrared light detector." The other cited references do not supply this missing teaching of Ruppert. Accordingly, claim 23 is patentable over the cited references. The dependent claims 24-31 are also patentable for at least the same reasons.

Regarding claim 32, Ruppert does not teach the steps of:

transmitting an infrared light signal from the programming station infrared light emitter to the headset infrared detector, where the signal contains

information regarding the operating frequency of the transmitter and receiver of the headset; and

setting the operating frequency of the transmitter and receiver of the headset in response to the signal.

As discussed above, Ruppert does not describe that an IR signal will contain information regarding the operating frequency of the transmitter and receiver of the headset. Also, Ruppert does not disclose the step of setting the operating frequency of the transmitter and receiver in response to receiving the signal. Accordingly, claim 32 is patentable over the cited references. The dependent claims 33-34 are also patentable for at least the same reasons.

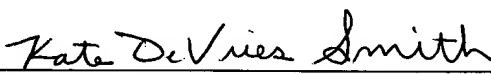
Regarding claim 35, Ruppert does not teach a headset where the operation frequency for the transmitter and receiver of the headset is determined by a signal received by the headset infrared light detector. Accordingly, claim 35 is patentable over the cited references. The dependent claims 36-40 are also patentable for at least the same reasons.

In view of the above amendments and remarks, Applicants respectfully request a Notice of Allowance. If the Examiner believes that a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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